

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)	Art Unit: 1654
)	
DJURUP, et al.)	Examiner: GUDIBANDE, S.
)	
Serial No.: 10/524,434)	Washington, D.C.
)	
Filed: February 15, 2005)	August 6, 2009
)	
For: BACTERICIDAL, ANTI-)	Docket No.: DJURUP=1
APOPTOTIC, PRO-)	
INFLAMMATORY AND...)	Confirmation No.: 4128

RESPONSE TO DECISION ON PETITION

Attention: Marianne Seidel
U.S. Patent and Trademark Office
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S i r :

We thank the Director (TC 1600) for granting the petition and vacating the action on the basis of the impropriety of the period for response.

The decision also concedes that "amino acids 1-5 of SEQ ID NO:595, 600, 605 or 606" do not need their own sequence identifiers.

However, it deems the complete sequence of claim 1 to be a sequence "made up of one or more noncontiguous segments of a larger sequence or segments from different sequences", and to contain at least four specifically defined amino acids. We disagree.

We agree that if claim 1 recited, say, a sequence "consisting of amino acids 1-5 and 10-15 of SEQ ID NO:X" the "noncontiguous segment" rule would apply. However, the decision does not explain how the formula of claim 1 can be construed as a combination of noncontiguous segments of a larger sequence, as it does not refer to any other segments of SIDs 595, 600, 605 or 606.

We also agree that if it referred to the sequence as a combination of "amino acids 1-5 of SEQ ID NO:X" and "amino acids 6-10 of SEQ ID NO:Y", the "segments-from-different-sequences" rule would apply.

However, the formula of claim 1 refers to SEQ ID Nos only in the alternative (in the definition of X1) and not in the conjunctive, and thus is not properly construed as a combination of segments from different identified sequences. Thus, one species of claim 1 might feature SID 595 at the X1 position, and another feature SID 600, but the sequence of claim 1 would not comprise the combination of SID 595 and SID 600 at X1.

We appreciate that the X1 is combined with the sequence X2...X19. However, this latter sequence has only two specifically defined amino acids and thus is not a listable sequence (the two Cys) under the rules.

Even the combined sequence X1..X19 does not comprise at least four specifically defined amino acids as required by 37 CFR 1.821(e). According to that rule, an amino acid which would have to be listed as "Xaa" is not "specifically defined". The rules permit use of "Glx" for Gln/Glu and of "Asx" for Asp/Asn, but otherwise if there is a choice at a single position among two or more amino acids, "Xaa" applies, and the amino acid in question is not specifically defined.

If proviso (b) is satisfied, i.e., X19 is one of the 17 amino acids not Gly, Ala or Ser, proviso (a) is optional, and X1 can be Arg, Lys or any 2-5 amino acid peptide consisting of any of the 20 amino acids at each position.

If proviso (b) is not satisfied, i.e. X19 is Gly, Ala or Ser, then under proviso (a), X1 is any of

KQGRH (595),
NQGRP (600),
RRGGH (605),
RSREY (606),

KQGRP (607),
KQGKP (608),
RQGRP (609),
RQGKP (610),
NQGKH (612),
Arg, or
Lys.

In the last two cases, X₁ only determines position 1, and positions 2-5 are X₂-Cys-X₃-X₄ and thus XCXX. In the other cases, X₁ determines position 1-5, and X₂ is position 6.

Thus even if (a) applies, position 1 is Asn, Arg or Lys, position 3 is Gly, Arg, or Cys, and positions 2, 4, and 5 can be any of the 20 amino acids.

Thus, we submit that in the sequence recited in claim 1, there are still only two specifically identified amino acids (the two Cys), and hence the sequence ought not be listed.

Should the Director disagree, applicants request guidance as to precisely how the sequence is recited in the listing. One approach, which would represent the formula of claim 1 by a single sequence in the listing, would be to replace X₁ with Xaa-Xaa-Xaa-Xaa-Xaa (and of course X₂-X₁₉, each with one Xaa) and, in the <223> field for positions (1)..(5), state something like "wherein (I) position (1) is Arg or Lys and positions (2)..(5) null, or (II) if X₁₉ (25) is Gly, Ala or Ser, (1)..(5) are amino acids 1-5 of SID 595, 600, 605, or 606 or one of Sid 607, 608, 609, 610 or 612, or (III) if X₁₉ (25) is not Gly, Ala or Ser, (1)..(5) are a peptide of 2-5 amino acids wherein each amino acid position is any amino acid". But that would probably exceed the maximum length of a <223> field.

The alternative is to represent that formula by multiple sequences in the listing. To cover each of the proviso (a) embodiments, we would need 11 sequences. And we would also need

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a twelfth sequence for the (b) embodiment. All for identifying one generic sequence in one claim.

Respectfully submitted,

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